

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-88 (Canceled)

89. (Currently Amended) A method for configuring a graphical user interface (GUI) element to subscribe to a data source, the method comprising:

displaying a first GUI element for a graphical program on a display of a first computer system, wherein the graphical program comprises a plurality of interconnected nodes which visually indicate functionality of the graphical program;

receiving user input specifying a data source with which to associate the first GUI element;

in response to said receiving user input, automatically configuring the first GUI element to receive and display data from the specified data source;

the first computer system receiving data from the specified data source, wherein the data includes information specifying a first data type of the data;

automatically determining that the first GUI element cannot display data of the first data type;

automatically substituting a second GUI element for the first GUI element, wherein the second GUI element can display data of the first data type; and

displaying the received data from the specified data source on the second GUI element.

90. (Currently Amended) The method of claim [[89]] 89,

wherein the data source is located remotely from the first computer system and is coupled to the first computer system over a network, wherein the data source is specified using a URL; and

wherein said automatically configuring the first GUI element to receive and display data from the specified data source comprises:

automatically configuring the first GUI element to connect to the data source.

91. (Currently Amended) The method of claim 89, wherein the first GUI element is automatically configured without user programming.

92. (Currently Amended) The method of claim 89, wherein the first GUI element is automatically configured without user input specifying source code. ~~code for this operation~~

93. (Previously Presented) The method of claim 89,
wherein said receiving user input specifying the data source comprises receiving user input via a user interface dialog box.

94. (Currently Amended) The method of claim 89, further comprising:
the first GUI element performing said receiving and displaying data from the specified data source, wherein said performing is performed after said automatically configuring.

95. (Currently Amended) The method of claim 89,
wherein the data source is comprised in a second computer system remotely located from the first computer system, wherein the first computer system is operable to connect to the second computer system over a network; and
wherein said automatically configuring the first GUI element comprises automatically configuring the first GUI element to connect to the second computer and perform said receiving and displaying data from the specified data source.

96. (Currently Amended) The method of claim 89, wherein the first GUI element is associated with ~~a first computer~~ the graphical program;
wherein said displaying the first GUI element comprises including the first GUI element in a user interface associated with the ~~first computer~~ graphical program; and

wherein said user input specifying the data source is received during development of the ~~first computer~~ graphical program.

97. (Currently Amended) The method of claim 96, wherein, during execution of the ~~first computer~~ graphical program, the first GUI element is operable to perform said receiving and displaying data from the specified data source.

98. (Currently Amended) The method of claim 96, further comprising:
executing the ~~first computer~~ graphical program after said automatically configuring, wherein said executing the ~~first computer~~ graphical program includes the first GUI element performing said receiving and displaying data from the specified data source.

99. (Canceled)

100. (Previously Presented) The method of claim 89, wherein the data source is one from the group consisting of:

- an HTTP server;
- an FTP server;
- an OPC server;
- an SNMP server;
- a DataSocket server; and
- a file.

101. (Currently Amended) The method of claim ~~[[101]]~~ 89,
wherein the ~~[[first]]~~ data source is a remote data source associated with a remote computer; and

wherein said automatically configuring the first GUI element comprises automatically configuring the first GUI element to connect to the remote data source and receive and display data from the remote data source during program execution.

102. (Currently Amended) The method of claim 101, further comprising:
executing a computer program operable to publish live data to the remote data source;

wherein the first GUI element is operable to display the live data ~~published by the computer program.~~

103. (Previously Presented) The method of claim 89,
wherein the data is live data.

104. (Previously Presented) The method of claim 103,
wherein the data comprises measurement data.

105. (Currently Amended) A computer-readable memory medium that stores program instructions for configuring a graphical user interface (GUI) element to subscribe to a data source, ~~the method comprising~~ wherein the program instructions are computer-executable to implement:

displaying a first GUI element for a graphical program on a display of a first computer system, wherein the graphical program comprises a plurality of interconnected nodes which visually indicate functionality of the graphical program;

receiving user input specifying a data source with which to associate the first GUI element;

in response to said receiving user input, automatically configuring the first GUI element to receive and display data from the specified data source;

the first computer system receiving data from the specified data source, wherein the data includes information specifying a first data type of the data;

automatically determining that the first GUI element cannot display data of the first data type;

automatically substituting a second GUI element for the first GUI element, wherein the second GUI element can display data of the first data type; and

displaying the received data from the specified data source on the second GUI element.

106. (Currently Amended) A method for configuring a graphical user interface (GUI) element to subscribe to a data source, the method comprising:

displaying a first GUI element for a graphical program on a display of a first computer system, wherein the graphical program comprises a plurality of interconnected nodes which visually indicate functionality of the graphical program;

receiving user input specifying a data source with which to associate the first GUI element;

in response to said receiving user input, automatically configuring the first GUI element to receive and display data from the specified data source;

the first computer system receiving data from the specified data source, wherein the data includes information specifying a first data type of the data;

automatically determining if the first GUI element can display data of the first data type; and

indicating an invalid condition if the first GUI element cannot display data of the first data type.

107. (Currently Amended) The method of claim [[106]] 106,

wherein the data source is located remotely from the first computer system and is coupled to the first computer system over a network, wherein the data source is specified using a URL; and

wherein said automatically configuring the first GUI element to receive and display data from the specified data source comprises:

automatically configuring the first GUI element to connect to the data source.

108. (Currently Amended) The method of claim 106, wherein the first GUI element is automatically configured without user programming.

109. (Currently Amended) The method of claim 106, wherein the first GUI element is automatically configured without user input specifying source code. ~~code for this operation~~

110. (Previously Presented) The method of claim 106,
wherein said receiving user input specifying the data source comprises receiving user input via a user interface dialog box.

111. (Currently Amended) The method of claim 106, further comprising:
the first GUI element performing said receiving and displaying data from the specified data source, wherein said performing is performed after said automatically configuring.

112. (Currently Amended) The method of claim 106,
wherein the data source is comprised in a second computer system remotely located from the first computer system, wherein the first computer system is operable to connect to the second computer system over a network; and
wherein said automatically configuring the first GUI element comprises automatically configuring the first GUI element to connect to the second computer and perform said receiving and displaying data from the specified data source.

113. (Currently Amended) The method of claim 106, wherein the first GUI element is associated with a ~~first computer~~ graphical program;
wherein said displaying the first GUI element comprises including the first GUI element in a user interface associated with the ~~first computer~~ graphical program; and
wherein said user input specifying the data source is received during development of the ~~first computer~~ graphical program.

114. (Currently Amended) The method of claim 113, wherein, during execution of the ~~first computer~~ graphical program, the first GUI element is operable to perform said receiving and displaying data from the specified data source.

115. (Currently Amended) The method of claim 113, further comprising:
executing the ~~first computer~~ graphical program after said automatically configuring, wherein said executing the ~~first computer~~ graphical program includes the first GUI element performing said receiving and displaying data from the specified data source.

116. (Canceled)

117. (Previously Presented) The method of claim 106, wherein the data source is one from the group consisting of:

- an HTTP server;
- an FTP server;
- an OPC server;
- an SNMP server;
- a DataSocket server; and
- a file.

118. (Currently Amended) The method of claim 106,
wherein the first data source is a remote data source associated with a remote computer; and

wherein said automatically configuring the first GUI element comprises automatically configuring the first GUI element to connect to the remote data source and receive and display data from the remote data source during program execution.

119. (Currently Amended) The method of claim 118, further comprising:
executing a computer program operable to publish live data to the remote data source;

wherein the first GUI element is operable to display the live data ~~published by the computer program.~~

120. (Previously Presented) The method of claim 106,
wherein the data is live data.

121. (Previously Presented) The method of claim 103,
wherein the data comprises measurement data.

122. (Currently Amended) A computer-readable memory medium that stores program instructions for configuring a graphical user interface (GUI) element to subscribe to a data source, ~~the method comprising~~ wherein the program instruction are computer-executable to implement:

displaying a first GUI element for a graphical program on a display of a first computer system, wherein the graphical program comprises a plurality of interconnected nodes which visually indicate functionality of the graphical program;

receiving user input specifying a data source with which to associate the first GUI element;

in response to said receiving user input, automatically configuring the first GUI element to receive and display data from the specified data source;

the first computer system receiving data from the specified data source, wherein the data includes information specifying a first data type of the data;

automatically determining if the first GUI element can display data of the first data type; and

indicating an invalid condition if the first GUI element cannot display data of the first data type.

123. (New) The method of claim 89, wherein said displaying the first GUI element, said receiving the user input specifying the data source, said automatically

configuring the first GUI element, said first computer system receiving data, said automatically determining, said automatically substituting the second GUI element, and said displaying the received data are performed during creation of the graphical program.